



# interoffice

SFUND RECORDS CTR  
2378139

to Hazardous Waste Management Branch  
from Varian Associates-Solid State Microwave Division *DS*  
date 3 January 1986  
subject Variances from Facility Permit Requirements;  
Supporting Documentation

Per our application for a variance this memorandum provides the supporting documentation required per your instructions.

## DESIGN

Hazardous wastes are accumulated in drum type containers. We utilize three sizes; 5, 30, and 55 gal. capacity. Within each size there are open, closed, polypropylene, and metal drum types. They are purchased new or recycled each time we have the wastes hauled off. All containers are D.O.T. approved. Secondary containment is provided through concrete dikes/berms.

In reference to our elemental neutralization unit, we have (3) all polypropylene tanks (250, 450, and 1000 gal.) with concrete vaults surrounding the 250 and 450 gal. tanks for secondary containment. The concrete vaults are epoxy coated. The 1000 gal. tank is above ground with concrete dikes/berms for secondary containment. Containment is estimated at 110%+. This unit has been approved by the city of Santa Clara Building Department and the Santa Clara/San Jose Water Pollution Control Plant.

The location of the drum accumulation area and the elemental neutralization unit on the site relative to the property lines can be found on plate no. 3 of the enclosed groundwater monitoring report.

## WASTE CHARACTERISTICS

SSMD hazardous wastes fall into three categories; flammables, corrosives, and poisons. MSDS sheets are available both at the use point and in the Emergency Response Team manual. Monthly volumes of the different chemicals can be found on the second page of the attached Industrial Wastewater Discharge Application sent to the San Jose/Santa Clara Water Pollution Control Board. Wastes are segregated by type and accumulated in compatible containers for offsite disposal.

Waste characteristics of the waste water for the elemental neutralization unit include waste/spent nitric, sulfuric, hydrochloric, and aqua regia acid solutions with dionized water. Treatment is accomplished through the addition of sodium hydroxide or muriatic acid to correct pH.

## PROCESS

Wastes are generated from semiconductor manufacturing processes. Wastes are picked up on a weekly basis in approved collection containers and transported by cart to the designated Hazardous Chemical Waste accumulation area. From there it is picked up on an on-call basis by Safety Specialists, a state approved chemical waste handler. No on-site waste disposal or processing is carried out, except for the neutralization of waste water. Waste water from the elemental neutralization unit is discharged into the city sewer. The pH is continuously monitored and alarmed on a 24-hour basis. A composite waste water sample is taken monthly and analyzed for heavy metals and solvents used at this facility. Attached is a copy of the last 12 months sampling report. All acids are compatible.

## OPERATIONAL PROCEDURES

Site security is extensive. The designated waste accumulation area is surrounded by chain link fencing with bi-lingual warning signs. The area inside the fence has an alarm button for spills within the waste accumulation area. Waste water discharge is monitored for pH continuously 24 hours a day. It is alarmed if the pH goes above 10 or below 5.5. After hours the chemical alarms are monitored by our corporate Security department who has a call list in the event of an after hours spill or alarm.

All personnel who work with hazardous chemicals are provided with MSDS sheets and training. SSMD has a trained Emergency Response Team, capable of handling most all spills and injuries. Equipment on hand include spill pillows, SCBA gear, gas detectors, first aid equipment, etc. Monthly drills are held for the ERT, with in-house classroom training.

Leak detection procedures for containers in the Chemical Waste accumulation area, associated piping, and the Elemental Neutralization Unit tanks and vaults are carried out on a weekly basis and are documented.